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EXAMINER

LIN, KENNY S

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 03/09/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/691,324

Applicant(s)

SCHAECK, THOMAS

Examiner

Kenny Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-15 and 17 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-17 are presented for examination.

Allowable Subject Matter

2. Claim 16 is allowed.
3. The following is an examiner's statement of reasons for allowance: None of the prior arts of record teaches or fairly suggests all of the limitation recited in the claims, specifically the limitation of a replication component for producing a copy of the mobile software agent for distribution to other destination systems and a merger component for merging several mobile software agents having like tasks into a single merged mobile software agent.
4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
5. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 8 recites the limitation "said creating means" in line 1. There is insufficient antecedent basis for this limitation in the claim. (i.e., Claim 1 claimed a means for transmitting the mobile software agent and a means for spreading a mobile software agent. Do you mean means for creating the mobile software agent instead of means for transmitting? Correction is required either in claim 1 or in claim 8).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9. Claim 1, 4-5, 7, 9 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Heddaya et al, US 6,622,157.

10. As per claim 1, Heddaya taught the invention as claimed including a system for communication with a mobile data processing device by way of a mobile software agent (abstract), said system comprising:

- a. Means for transmitting the mobile software agent (col.3, lines 45-51, col.8, lines 33-38);
- b. Means for spreading a mobile software agent from an originating system via a network to one or more destination system (col.3, lines 45-51, col.8, lines 33-38);
- c. Means for running the mobile system agent (col.3, lines 52-56); and
- d. Means for communicating, including a mobile software agent interface component for communicating with the mobile software agent, and a mobile data processing device interface component for communicating with the mobile data processing device (col.3, lines 52-64, col.4, lines 15-31, col.8, lines 60-67, col.9, line 1, col.10, lines 11-16).

11. As per claim 4, Heddaya taught the invention as claimed in claim 1. Heddaya further taught that wherein the mobile software agent interface component comprises:

- a. A support component to receive the mobile software agent from the network on the destination system (col.9, lines 60-64); and

- b. A component to deliver installation information for the destination system (col.9, lines 60-64).

12. As per claim 5, Heddaya taught the invention as claimed in claim 1. Heddaya further taught that wherein the mobile data processing device interface component has at least one communication component to detect events on the mobile data processing device and transmit the events to the mobile software agent (col.3, lines 45-64).

13. As per claim 7, Heddaya taught the invention as claimed in claim 4. Heddaya further taught that wherein reception of the mobile software agent by way of the mobile software agent interface component is executed by means of TCP/IP protocol (col.6, lines 44-49).

14. As per claim 9, Heddaya taught the invention as claimed in claim 1. Heddaya further taught that wherein the mobile software agent interface component and the mobile data processing device interface component are installed on the destination system (col.9, lines 60-64, col.10, lines 11-26).

15. As per claim 12, Heddaya taught the invention as claimed in claim 1. Heddaya further taught that further comprising an authentication component to authenticate the mobile software agent to the mobile data processing device (col.9, lines 1-5).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heddaya et al (hereinafter Heddaya), US 6,622,157, in view of Sidey, US 5,954,797.

18. As per claims 15 and 17, Heddaya taught the invention substantially as claimed including a method for communication with a mobile data processing device by way of a mobile software agent, wherein the mobile data processing device is addressable via a network, said method comprising the steps of:

- a. Creating a mobile software agent (the creation of a mobile software agent is an essential step required before it can be transmitted and used, therefore creating a mobile software agent is inherent);
- b. Spreading the mobile software agent across the network into one or more systems (col.3, lines 45-51, col.8, lines 33-38);
- c. Delivering information to a software agent interface component for each of the systems for reception of mobile software agents from the network, including information for making migration or installation decisions (col.8, lines 54-67, col.9, lines 1-14, col.9, lines 30-31, 60-64);

- d. Evaluating the delivered information (col.8, lines 54-67, col.9, lines 1-14, col.9, lines 30-31, 60-64);
- e. For each of the systems, installing the mobile software agent on the system if it is determined that the mobile software agent is intended for the system (col.9, lines 60-64);
- f. Establishing a communication link between the mobile software agent and the mobile data processing device via a mobile data processing device interface component of the system (col.3, lines 52-64, col.4, lines 15-31, col.8, lines 60-67, col.9, line 1);
- g. Performing actions of the mobile software agent on the mobile data processing device via the mobile data processing device interface component (col.3, lines 52-64).

19. Heddaya did not specifically teach to classify the mobile data processing device on establishment of a connection between the mobile data processing device and the mobile data processing device interface component; and to perform actions of the mobile software agent on the mobile data processing device via the mobile data processing device interface component dependent on results of said classifying stop. However, Sidey taught to classify the mobile data processing device on establishment of a connection between the mobile data processing device and the mobile data processing device interface component (col.10, lines 39-47); and to perform actions of the mobile software agent on the mobile data processing device via the mobile data processing device interface component dependent on results of said classifying stop (col.10, lines

39-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Heddaya and Sidey because Sidey's teaching of classifying the mobile data processing device help Heddaya's method to determine the proper communication requirement in connecting with the mobile agent.

20. Claim 8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heddaya as applied to claim 1 above, and further in view of "Official Notice".

21. As per claim 8, Heddaya taught the invention substantially as claimed in claim 1. Heddaya did not specifically teach that wherein said creating means is a backend system, the destination system is a data processing device with a chipcard reader and the mobile data processing device is a chipcard. Official Notice is taken that the limitations narrowed by this claim is considered obvious and furthermore a matter of design choice, since applicants have not disclosed that the claimed limitations solve any stated problem or are for any particular purpose and it appears that the invention would perform equally well without these claimed features. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to efficiently utilize all claimed means hereto into all suitable devices or systems.

22. As per claim 10, Heddaya taught the invention substantially as claimed in claim 1. Heddaya did not specifically teach wherein the mobile software agent interface component is identical for all mobile software agents and only the mobile data processing device interface component for the associated mobile data processing device needs to be installed. Official

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Notice is taken that the limitations narrowed by this claim is considered obvious and furthermore a matter of design choice, since applicants have not disclosed that the claimed limitations solve any stated problem or are for any particular purpose and it appears that the invention would perform equally well without these claimed features. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to install all compatible mobile software agent interface components in both the mobile software agent and mobile data processing devices.

23. As per claim 11, Heddaya taught the invention substantially as claimed in claim 1. Heddaya did not specifically teach wherein the interface components can be downloaded to the destination systems over a network. Official Notice is taken that both the concept and advantage of downloading is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Heddaya and downloading ability to download the interface components to the destination system for installing or updating of the interface component.

24. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heddaya as applied to claim 1 above, and further in view of Sidey, US 5,954,797, and Mathur et al (hereinafter Mathur), US 6,671,745.

25. As per claim 2, Heddaya taught the invention substantially as claimed in claim 1. Heddaya further taught that a recognition component to recognized the destination system (col.8,

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lines 54-67, col.9, lines 1-14, col.9, lines 30-31, 60-64); and execution component to run on the destination system (col.9, lines 60-62, col.10, lines 11-16) and one ore more action components to perform specific actions on the mobile data processing device (col.3, lines 52-64). Heddaya did not specifically teach that wherein the mobile software agent includes an event-handling component to handle events communicated via the mobile data processing device interface component relating to the status of the mobile data processing device; a classification component to classify the mobile data processing device; and one or more action components to perform specific actions on the mobile data processing device dependent on results from the classification component. Sidey taught to include a classification component to classify the mobile data processing device (col.10, lines 39-47); and one or more action components to perform specific actions on the mobile data processing device dependent on results from the classification component (col.10, lines 39-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Heddaya and Sidey because Sidey's teaching of classifying the mobile data processing device help Heddaya's method to determine the proper communication requirement in connecting with the mobile agent.

26. Heddaya and Sidey did not specifically teach to include an event-handling component to handle events communicated via the mobile data processing device interface component relating to the status of the mobile data processing device. However, Mathur taught to include event-handling component to handle events (col.8, lines 62-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Heddaya,

Sidey and Mathur because Mathur's teaching of using a event-handling component help Heddaya and Sidey's method to handle events.

27. Claims 6, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heddaya as applied to claims 1, 4 and 12 above, and further in view of Vanstone et al (hereinafter Vanstone), US 6,490,682.

28. As per claim 6, Heddaya taught the invention substantially as claimed in claim 4. Heddaya did not specifically teach wherein the mobile software agent interface component further comprises a component for secure storage of keys. However, Vanstone taught to include a component for secure storage of keys (col.2, lines 34-40). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Heddaya and Vanstone because Vanstone's teaching of storing keys would provide Heddaya's method a way to look up the identity of the mobile software agent.

29. As per claims 13 and 14, Heddaya taught the invention substantially as claimed in claim 12. Heddaya did not specifically teach wherein the authentication component comprises: a first component to request a random number from a mobile data processing device, said first component being part of the mobile software agent; a second component to transmit the random number to the originating system, said second component being part of the mobile software agent; a third component to sign the random number by means of a key, said third component being installed on the originating system; and a fourth component to verify the signature, said

fourth component being installed on the mobile data processing device. Vanstone taught to obtain a random number, to sign the random number by means of a key and to verify the signature using different components (col.3, lines 15-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Heddaya and Vanstone because Vanstone's method of using random number, key and signature help Heddaya's method to establish a unique authentication method in authenticating the mobile software agent to the mobile data processing device.

Conclusion

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Blevins, US 6,418,463.

Witt et al, US 6,144,739.

Zager et al, US 6,393,386.

Nwana et al, US 6,266,805.

Criss et al, US 6,643,506.

Van Hoff et al, US 6,272,536.

McFadden et al, US 6,614,804.

Cheyre et al, US 6,691,151.

31. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

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32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (703)305-0438. The examiner can normally be reached on 8 AM to 5 PM Tuesday to Friday and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. Additionally, the fax numbers for Group 2100 are as follows:

Official Responses: (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-6121.

ksl

March 2, 2004



JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100